account of the long course of the disease, seldom remain in the hospital. The most frequent changes are found in the brain; inflammatory and degenerative conditions of the fourth ventricle often occur, also tumours in that situation or in the cerebellum; these tumours are tubercular or gliosarcomata; there are also in some cases syphilitic exostoses of the skull, together with gummata of the liver. Prof. E. Hagenbach reports the following case: A girl four and a third years old, and previously healthy, began in the winter of 1879 and 1880 to be very fretful, to drink a great deal of water, and to lose her appetite; soon after she would not take anything but milk and water, and cried out for it in her sleep at night. The renal secretion was very large in amount, and there was decided emaciation. There was no history of injury; the parents were living and healthy, and there were three other healthy children. Hagenbach first saw the child December 23, 1880, after she had been in this condition for a year; she was pale and feverish, very restless and irritable. Nothing abnormal was discovered on examination of the chest. She drank a great deal of water. The specific gravity of the urine was 1004; no albumen; no sugar. December 24th she vomited. December 25th she complained of headache. December 27th there was sudden loss of consciousness, with stiffening of the limbs and a quick pulse. On the following day there was converging strabismus, twitching of the right arm and leg, and the right side of the face, and great somnolence. January 2d the pupils were dilated and not reacting, the right pupil being narrower than the left. January 6th death took place without convulsions. The patient passed immense quantities of urine, which it was impossible to measure accurately, during the latter part of her life; the specific gravity varied between 1000 and 1004, and there was no sugar found at any time, although repeated examinations were made. The post-mortem showed the principal changes to be cheesy tubercle of the infundibulum; meningeal tubercle and distension of the fourth ventricle and the lateral ventricles; tubercular peribronchitis at both apices, with a few fresh miliary tubercles of the left lung; follicular ulceration of the large intestine; interstitial hepatitis; hemorrhages in the kidney, and hemorrhagic erosions in the stomach and duodenum.—*Boston Med. and Surg. Journ.*, July 26, 1883.

Melituria after Scarlatina.

Dr. ZINN, of Bamberg, reports the following case: January 27th a boy, four years of age, previously strong and healthy, and of healthy parentage, was seized with scarlet fever and diphtheria. The eruption faded on the seventh day, and the diphtheria gradually subsided. On the thirteenth day an otitis externa appeared, and stormy vomiting with rapid development of œdema and ascites, the urine now for the first time showing evidence of nephritis, being lessened in quantity, and showing a large amount of albumen and numerous casts and blood corpuscles. In a few days the more dangerous symptoms passed off, the patient being treated with hot baths and injections of pilocarpine, and a diffuse diuresis having set in the œdema and ascites quickly disappeared. Although the appetite improved considerably the little patient's strength did not return, so that he remained in bed during the whole month of March. Early in April, on attempting to walk, he was found to have paralysis of the right leg, which, however, soon passed off under the administration of iron without electricity. At this time also a slight amount of albumen appeared in the urine. The next symptom which presented itself was increased action of the heart, even noticed by the child himself. On the 10th of April the urine had a specific gravity of 1030, and a considerable amount of sugar. The amount of urine passed in twenty-four hours decreased to between 750 and 1000 cubic centimetres. The appetite was good, but not excessive; the thirst was not noticeably increased, and nothing else abnormal was discovered. The child was placed on an exclusively meat diet, with milk, eggs, and red wine, and by the end of April there was only one per cent. of sugar in the urine, and by the middle of May one-fourth per cent. From this time the child improved in strength, and was allowed to have a mixed diet, and by the middle of June the urine was free from both sugar and albumen, and the patient soon became as strong and well as ever.

This case is of unusual interest, both from the rarity of its occurrence as a sequela of scarlet fever and from its unusually favourable result. Külz, in his article on diabetes mellitus in Gerhardt's *Handbuch der Kinderkrankheiten*, states that out of 111 cases of this disease only seven recovered. The same author mentions that the cause in two cases appeared to be measles, but no case is attributed to scarlet fever. Redon, in his collection of cases of diabetes,[1] gives, among other causes, weakness from previous diseases, such as measles, scarlet fever, typhoid, etc. Yet on looking over the original articles from which he gathers his cases scarlet fever in no instance is found to be a cause. Thomas, in Ziemssen's *Handbuch der Allgemeinen Pathologie*, Band i., s. 290, speaks of the appearance of sugar in the urine with cerebral symptoms occurring during the stage of fever in scarlet fever, but not as a sequela of that disease. In view of this case of Zinn's it would be well during a convalescence from scarlet fever to examine the urine carefully for sugar as well as albumen where the patient does not gain in general strength as fast as he ought to.—*Boston Med. and Surg. Journ.*, July 26, 1883.

Acetonuria and Diabetic Coma.

The termination of diabetes by acetonuria or acetone intoxication, if one may judge by recent statistics, seems to be much more frequent than is generally supposed. S. MACKENZIE has noted it 19 times in 37 cases of diabetes, and 26 times in 43 other cases observed in Guy's Hospital. From these facts he believes that he is justified in concluding that young diabetics frequently die in coma, the disease developing in these with a certain acuity, and the lungs being sound or invaded only by the lesions of commencing phthisis.

In a work on diabetic coma Frerichs reports no less than 25 cases coming under his own observation, of which he made detailed observations. He divided these into three groups: the first comprehending cases of diabetes with rapid death, the patients having died in a comatose state in a few hours after being seized, without prodromal symptoms, with general feebleness, failing pulse, and cold extremities. Some of the patients in this first group already had marasmus. In the second group the comatose state was preceded by prodromal symptoms, general feebleness, gastric symptoms, nausea, vomiting, and obstinate constipation, or by some local affection such as dental abscess, pharyngitis, phlegmon with tendency to gangrene, bronchitis, or broncho-pneumonia. Before falling into the somnolent and comatose state the patients have headache, agitation with delirium, great pain, sometimes true accessions of mania, and dyspnœa; at times they make deep inspirations and expirations; the pulse becomes rapid and feeble; the temperature descends below the physiological level. This state lasts from three to five days. In the third group Frerichs places the diabetic patients who, without the least dyspnœa or pain, with firm pulse and well preserved vital forces, are suddenly taken with headache, a kind of intoxication, and finally somnolence, coma, and death.

The numerous remedies which have been proposed against these accidents

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[1] Virchow und Hirsch, Jahrb., 1877, Band ii.